

## REMARKS

In accordance with the foregoing, claims 7, 15, 21, and 29 are cancelled without prejudice or disclaimer and claims 1, 8, 9, 16, 17, 22, 25, and 33 are amended. Accordingly, claims 1-4, 8-12, 16-19, 22-27 and 30-40 are pending and under consideration.

### Rejection of Claims 1-4, 9-12, 17-19, 25-27 and 33-40 Under 35 U.S.C. §103(a)

The Office Action rejects claims 1-4, 9-12, 17-19, 25-27 and 33-40 under 35 U.S.C. §103(a) as being unpatentable over European Patent No. 1,160,787 issued to Goldstein in view of U.S. Patent No. 5,956,307 issued to Koudo et al. (hereinafter referred to as "Koudo"). This rejection is respectfully traversed.

As indicated in the Office Action mailed August 29, 2008 and the Office Action mailed February 21, 2008, Goldstein and Koudo, taken separately or in combination, do not disclose, teach, or suggest at least, "determining whether a data recording error occurs due to a defect of the optical disc," as recited in independent claims 1 and 9. Therefore, for at least these reasons, claims 1 and 9 are patentably distinguishable from the cited references.

Claims 2-4, 8, and 37 depend from claim 1 and include all of the features of claim 1. Therefore, for at least these reasons, claims 2-4, 8, and 37 are also patentably distinguishable from the cited references.

Claims 10-12, 16, and 38 depend from claim 9 and include all of the features of claim 9. Therefore, for at least these reasons, claims 10-12, 16, and 38 are patentably distinguishable from the cited references.

Similarly, Goldstein and Koudo, taken separately or in combination, do not disclose, teach, or suggest at least, "wherein the controller determines whether the data recording error occurs due to a defect of the optical disc," as recited in independent claims 17 and 25. Therefore, for at least these reasons, claims 17 and 25 are patentably distinguishable from the cited references.

Claims 18, 19, 22-24, and 39 depend from claim 17 and include all of the features of claim 17. Therefore, for at least these reasons, claims 18, 19, 22-24, and 39 are also patentably distinguishable from the cited references.

Claims 26, 27, 30-32, and 40 depend from claim 25 and include all of the features of claim 25. Therefore, for at least these reasons, claims 26, 27, 30-32, and 40 are also patentably distinguishable from the cited references.

Similarly, Goldstein and Koudo, taken separately or in combination, do not disclose, teach, or suggest at least, "determining whether at least one of a data recording error or a data reproduction error occurs due to a defect of the optical disc," as recited in independent claim 33. Therefore, for at least these reasons, claim 33 is patentably distinguishable from the cited references.

Claims 34-36 depend from claim 33 and include all of the features of claim 33. Therefore, for at least these reasons, claims 34-36 are also patentably distinguishable from the cited references.

Accordingly, withdrawal of this rejection is respectfully requested.

Rejection of Claims 7, 8, 15-16, 21-24 and 29-32 Under 35 U.S.C. §103(a)

The Office Action rejects claims 7, 8, 15-16, 21-24 and 29-32 under 35 U.S.C. §103(a) as being unpatentable over Goldstein in view of Koudo and further in view of U.S. Patent No. 7,092,334 issued to Choi et al. (hereinafter referred to as "Choi"). This rejection is respectfully traversed.

Claims 7, 15, 21, and 29 are cancelled without prejudice or disclaimer.

Goldstein, Koudo, and Choi, taken separately or in combination, do not disclose, teach, or suggest at least, "determining whether a data recording error occurs due to a defect of the optical disc; and if it is determined that the data recording error has occurred, rotating the optical disc at an adjusted constant angular velocity..., wherein the adjusted constant angular velocity is one step or two steps lower than the predetermined constant angular velocity, according to an extent of the data recording error," as recited in independent claim 1.

The Abstract of Goldstein discloses, "The writer controller interacts with the laser optics 110 and servo 114 of the optical writer to dynamically adjust the speed at which data is written to the optical media based upon the amount of data in the optical writer's buffer and the rate at which data is being supplied to such buffer. In a preferred embodiment, the write controller decreases the write speed if the amount of data in the optical writer's buffer drops below a threshold amount....Also, the write controller increases the write speed if the amount of data in the optical writer's buffer is above a "safe" threshold." Therefore, Goldstein is directed toward solving the problem of "buffer underrun" errors and "buffer overrun" errors. However, Goldstein does not disclose adjusting constant angular velocity to solve these problems and does not disclose determining whether a data recording error has occurred due to a defect on the optical disc. Further, because Goldstein does not recognize the problems caused by a defective optical

disc, Goldstein does not provide a solution to solve problems caused by a defective optical disc.

Col. 11 lines 24-28 of Koudo discloses, "It is an object of the invention to ensure the reproduction quality in the case where a disk wherein recording was performed by the CLV [constant linear velocity] system is reproduced by the variable linear velocity reproduction system, and realize both high speed access and low power consumption." Although constant angular velocity of an optical disk is mentioned in col. 32, lines 30-67, Koudo teaches against the use of constant angular velocity of optical disks. Instead, Koudo teaches the advantages of variable linear velocity reproduction. Therefore, Koudo teaches away from the use of constant angular velocity in optical disk drives.

Moreover, Koudo does not disclose adjusting constant angular velocity to solve these problems and does not disclose determining whether a data recording error has occurred due to a defect on the optical disc. Further, because Koudo does not recognize the problems caused by a defective optical disc, Koudo does not provide a solution to solve the problems caused by a defective optical disc.

Choi discloses a method of detecting a defect area of a writable disk and subsequently reduces the recording speed. However, Choi does not disclose adjusting constant angular velocity to solve these problems. In addition, Choi does not disclose, "wherein the adjusted constant angular velocity is one step or two steps lower than the predetermined constant angular velocity, according to an extent of the data recording error," as recited in claim 1. Choi does not disclose reducing constant angular velocity in steps to solve the problems caused by a defect in an optical disk.

Moreover, In *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1396, (U.S. Supreme Court 2007), the Supreme Court stated,

"Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the market place; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent issue. To facilitate review, this analysis should be made explicit. See *In re Kahn*, 441 F.3d 977,988 (CA Fed. 2006) ("[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness")."

Applicant respectfully submits that the Office Action does not articulate sufficient reasons for combining the three references cited to reject the claims. Goldstein and Koudo do not recognize the problems caused by a defective optical disk, which are solved by the present invention. Koudo teaches against the use of constant angular velocity in disk drives. Although Choi detects a defective area of an optical disk, Choi does not disclose the solutions provided in

the claims.

Therefore, for at least these reasons, claim 1 is patentably distinguishable from the cited references.

Claims 2-4, 8, and 37 depend from claim 1 and include all of the features of claim 1. Therefore, for at least these reasons, claims 2-4, 8, and 37 are also patentably distinguishable from the cited references.

Similarly, Goldstein, Koudo, and Choi, taken separately or in combination, do not disclose, teach, or suggest at least, "determining whether a data recording error occurs due to a defect of the optical disc; and if it is determined that the data reproduction error has occurred, rotating the optical disc at an adjusted constant angular velocity ..., wherein the adjusted constant angular velocity is one step or two steps lower than the predetermined constant angular velocity, according to an extent of the data recording error," as recited in independent claim 9. Therefore, for at least these reasons, claim 9 is patentably distinguishable from the cited references.

Claims 10-12, 16, and 38 depend from claim 9 and include all of the features of claim 9. Therefore, for at least these reasons, claims 10-12, 16, and 38 are patentably distinguishable from the cited references.

Similarly, Goldstein, Koudo, and Choi, taken separately or in combination, do not disclose, teach, or suggest at least, "a controller which, in response to the recording error signal, determines whether the data recording error occurs, and if it is determined that the data recording error has occurred, controls the motor driver to rotate the optical disc at an adjusted constant angular velocity..., wherein the adjusted constant angular velocity is one step or two steps lower than the predetermined constant angular velocity, according to an extent of the data recording error, and wherein the controller determines whether the data recording error occurs due to a defect of the optical disc," as recited in independent claim 17. Therefore, for at least these reasons, claim 17 is patentably distinguishable from the cited references.

Claims 18, 19, 22-24, and 39 depend from claim 17 and include all of the features of claim 17. Therefore, for at least these reasons, claims 18, 19, 22-24, and 39 are also patentably distinguishable from the cited references.

Similarly, Goldstein, Koudo, and Choi, taken separately or in combination, do not disclose, teach, or suggest at least, "a controller which, in response to the reproduction error signal, determines whether the data reproduction error occurs, and if it is determined that the data reproduction error has occurred, controls the motor driver to rotate the optical disc at an

adjusted constant angular velocity..., wherein the adjusted constant angular velocity is one step or two steps lower than the predetermined constant angular velocity, according to an extent of the data recording error, and wherein the controller determines whether the data recording error occurs due to a defect of the optical disc,” as recited in independent claim 25. Therefore, for at least these reasons, claim 25 is patentably distinguishable from the cited references.

Claims 26, 27, 30-32, and 40 depend from claim 25 and include all of the features of claim 25. Therefore, for at least these reasons, claims 26, 27, 30-32, and 40 are also patentably distinguishable from the cited references.

Similarly, Goldstein, Koudo, and Choi, taken separately or in combination, do not disclose, teach, or suggest at least, “determining whether at least one of a data recording error or a data reproduction error occurs due to a defect of the optical disc; if it is determined that the data [recording/reproduction] error has occurred, rotating the optical disc at an adjusted constant angular velocity..., wherein the adjusted constant angular velocity is one step or two steps lower than the predetermined constant angular velocity, according to an extent of the data recording error,” as recited in independent claim 33. Therefore, for at least these reasons, claim 33 is patentably distinguishable from the cited references.

Claims 34-36 depend from claim 33 and include all of the features of claim 33. Therefore, for at least these reasons, claims 34-36 are also patentably distinguishable from the cited references.

In addition, claims 37-40 refer to “constant linear velocity.” The Office Action mailed February 21, 2008 appears to assert that col. 9, line 40 through col. 10, line 25 of Goldstein teaches this feature. However, the term “constant linear velocity” is not even mentioned in this portion of Goldstein. Therefore, for at least these additional reasons, claims 37-40 are also patentably distinguishable from the cited references.

Accordingly, withdrawal of this rejection is respectfully requested.

#### Summary

Claims 1-4, 8-12, 16-19, 22-27 and 30-40 are pending and under consideration. It is respectfully submitted that none of the references taken alone or in combination disclose the present claimed invention.

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

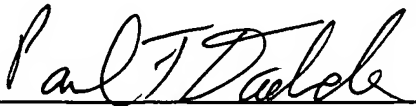
Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: October 29, 2008

By:   
Paul F. Daebeler  
Registration No. 35,852

1201 New York Avenue, N.W., 7th Floor  
Washington, D.C. 20005  
Telephone: (202) 434-1500  
Facsimile: (202) 434-1501